In the Claims

Please amend the claims as follows:

1. - 19. (Cancelled)

20. (Currently Amended) A microsystem adapted for dielectrophoretic manipulation of particles in a suspension liquid, said microsystem comprising:

– a channel with walls, said channel having a longitudinal extension in an x-direction and said channel walls comprising bottom and cover surface walls extending in the x-direction and an y-direction, and

– an electrode arrangement on at least one of said bottom or cover surface walls for generating a field barrier which crosses the channel at least partly, wherein

– wherein said electrode arrangement comprises at least one microelectrode [[has]] having a band-shape, and

– in relation to the longitudinal extension of said channel, said band-shape has a predetermined parabolic or hyperbolic curvature along its length ~~relative to the x- and y-directions~~ so that the field barrier has a corresponding parabolic or hyperbolic curvature.

21. (Previously Presented) The microsystem according to claim 20, in which the electrode arrangement comprises at least two microelectrodes of the same shape and alignment affixed on opposite channel walls, each of said at least two microelectrodes being in the shape of a curved band.

22. (Previously Presented) The microsystem according to claim 21, in which the at least two microelectrodes depending on a flow profile of said suspension liquid flowing though said channel are curved such that in every section of a field barrier of the microelectrodes a resulting force acting on a particle in said suspension liquid points to a region which is situated upstream in relation to the microelectrode.

23. (Previously Presented) The microsystem according to claim 22, in which the at least two microelectrodes comprise four microelectrodes being arranged as focusing electrodes to form a particle funnel.

24. (Currently Amended) The microsystem according to claim 21, in which the at least two microelectrodes adapted to a flow profile of said suspension liquid flowing through said channel are curved such that a resulting force acting on a particle from one end of each of the microelectrodes towards the other end describes a change in direction[[,]] which leads from ~~a direction to~~ a region situated upstream ~~in relation to the at least two microelectrodes and~~ to ~~a direction in~~ a region situated downstream respectively in relation to the at least two microelectrodes.

25. (Currently Amended) The microsystem according to claim 24, in which the at least two microelectrodes ~~comprise two microelectrodes provided as~~ are sorting electrodes providing field barrier in combination with the flow profile of the suspension liquid in the channel such that each of the suspended particles with different passive electrical characteristics can pass the sorting electrodes on a separate track[[s]] depending on the characteristics of said suspended particles.

26. - (Cancelled).

27. (Cancelled).

28. (Cancelled)

29. (Currently Amended) The microsystem according to claim 20 or 39, wherein at least two microelectrodes of the electrode arrangement are arranged in pairs on the bottom and cover walls of the channel

30. (Currently Amended) The microsystem according to claim 20 or 39, in which at least one microelectrode of the electrode arrangement comprises two microelectrodes being provided on two opposite channel walls, comprising different geometric shapes.

31. - 37. (Cancelled)

38. (Previously Presented). Method of dielectrophoretic manipulation of particles in a suspension liquid, using a microsystem according to claim 20 or 39, said method comprising the steps of:

- flowing said suspension liquid through the channel of said microsystem,
- forming a field barrier with a predetermined curvature relative to the direction of flow of said suspension liquid, and
- deflecting, sorting, collecting and/or forming microscopic particles under the influence of said field barrier.

39. (Previously Presented) A microsystem adapted for dielectrophoretic manipulation of particles in a suspension liquid, said microsystem comprising:

- a channel with channel walls, said channel having a longitudinal extension in an x-direction and said channel walls comprising bottom and cover surfaces walls extending in the x-direction and an y-direction, and

– an electrode arrangement with at least one microelectrode on at least one of said bottom or cover surfaces walls for generating a field barrier which crosses the channel at least partly, wherein

– the at least one microelectrode comprises a multitude of straight electrode sections connected with each other, and - in relation to the longitudinal extension of said channel, said straight electrode sections are arranged with predetermined, different angles and the field barrier has a parabolic or hyperbolic curvature relative to the x- and y-directions corresponding to the arrangement of said straight electrode sections.